

Lower Duwamish/East Waterway briefing

May 27, 2021



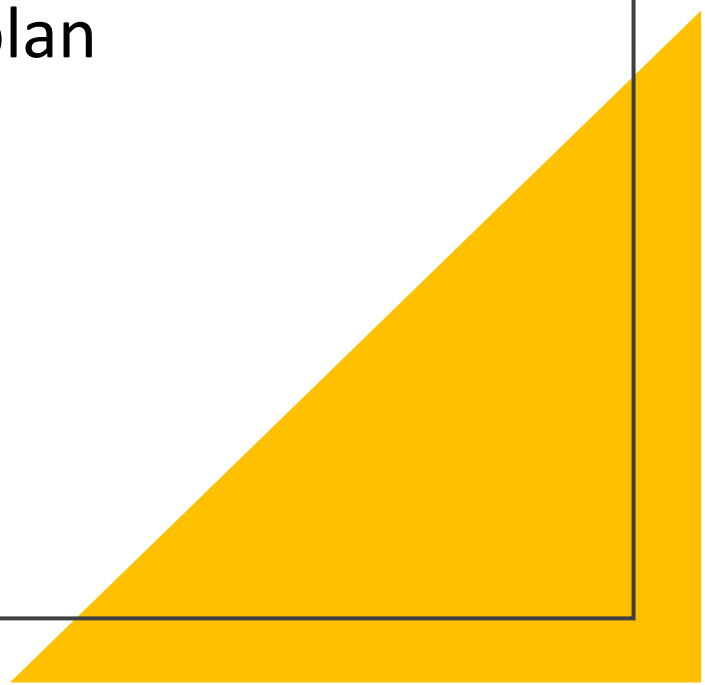


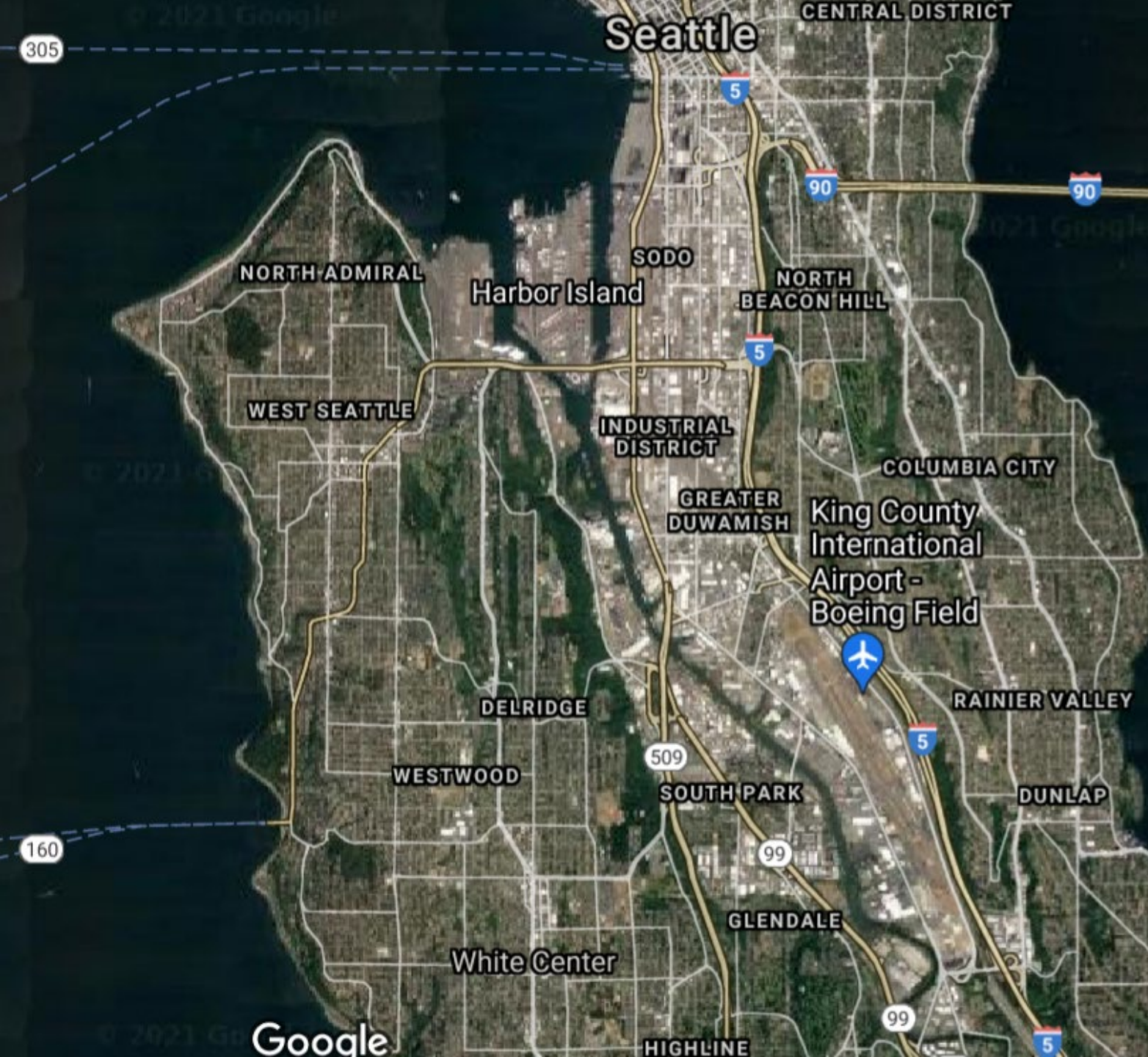
AGENDA

- Introductions
- Table setting
- Lower Duwamish Waterway ESD
- EMJ/Jorgensen Forge EE/CA
- East Waterway proposed plan




Table setting

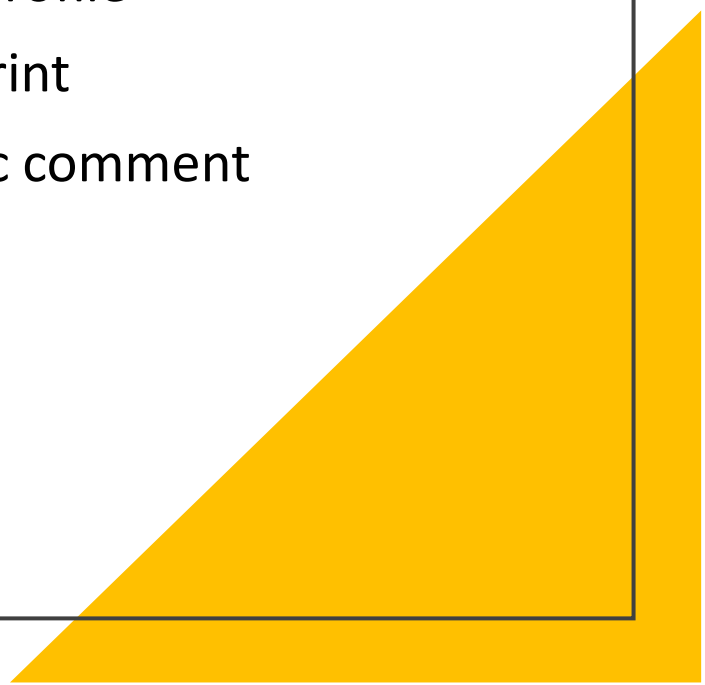
- CERCLA basics
 - What is a ROD?
 - What's a proposed plan
 - What's an ESD?
 - What's an EE/CA?
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Elliott Bay,
Harbor Island,
East and West
Waterway,
Lower
Duwamish
Waterway



Lower Duwamish Waterway ESD

- LDW site & cleanup plan
 - BaP & changes to its risk profile
 - Changes to cleanup footprint
 - Public outreach and public comment
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Lower Duwamish Waterway ESD: *The site*


- The site is a five-mile segment of the Duwamish that flows between South Park & Georgetown, through Seattle's industrial core into Elliott Bay.
- Placed on the Superfund list in 2001 due to high levels of PCBs, arsenic, dioxins/furans, carcinogenic polycyclic aromatic hydrocarbons (cPAHs -- *the star of today's show*), and other contaminants.
- In November 2014, EPA issued a final cleanup plan, or Record of Decision, for 411 acres of contaminated sediments.
- The Boeing Company, City of Seattle, King County, and the Port of Seattle -- the Lower Duwamish Waterway Group/'Ludwig' -- are the primary responsible parties and stepped up to do site studies, several early sediment cleanup actions, and ongoing design work.




Since completion of sediment cleanup in these Early Action Areas (EAAs), selected due to their high levels of PCBs and other contaminants, the average PCB level in Lower Duwamish Waterway sediment has dropped to half of what it was.


Earle M. Jorgensen sediment early action remains to be completed. State is addressing the upland areas of the site.


Lower Duwamish Waterway ESD: *2014 site cleanup plan*

- The cleanup plan called for active cleanup of 177 acres and monitoring of remaining areas where natural processes are expected to clean up the sediments.
 - The total cost of the cleanup is estimated to be \$342 million.
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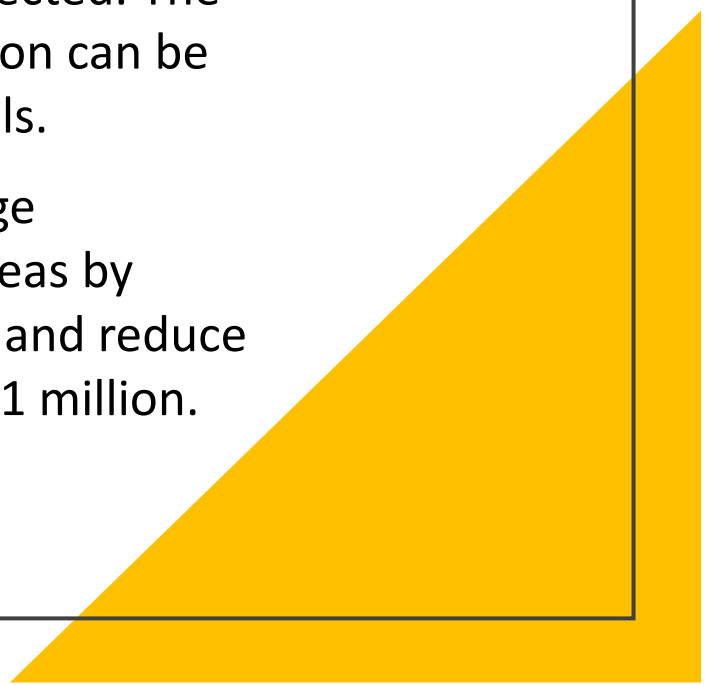


Lower Duwamish Waterway ESD: *BaP*

- The chemical benzo(a)pyrene (BaP) is one of seven cPAHs found in LDW sediments.
 - January 2017, EPA's Office of Research & Development finalized an update to the 1987 health risk information for BaP.
 - The extensive technical review indicated that the cancer risk associated with BaP is less than previous estimates.
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Lower Duwamish Waterway ESD: *Changes to cleanup footprint*

- EPA is proposing to change some of the levels for cPAHs in the cleanup plan.
 - The goals in the cleanup plan for human health protection are not affected. The same level of health protection can be achieved at higher cPAH levels.
 - EPA estimates that the change will reduce active cleanup areas by about five acres (out of 177) and reduce the cleanup costs by about \$1 million.
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Lower Duwamish Waterway ESD: *Public outreach & public comment*

- Sent emails to ~2,700 addresses announcing the proposed ESD 30-day comment period, fact sheet, additional available documents, and February 17 informational public meeting. Emailed announcements for two separate 15-day extensions to the comment period.
- Sent email meeting reminders to members of the Duwamish Roundtable caucuses in English, Spanish, Vietnamese, and Khmer.
- Presented the proposed changes in a letter to the federally recognized Muckleshoot Indian Tribe, Suquamish Tribe, and Confederated Tribes and Bands of the Yakama Nation, which have treaty rights at the LDW. Also reached out directly via email to the Duwamish Tribe as well as through our contacts at the Duwamish River Cleanup Coalition (our Technical Advisory Grant recipient).


Lower Duwamish Waterway ESD: *Public outreach & public comment*

- Presented information about the proposed ESD to the Georgetown Community Council and met with the Community Health Advocates to answer additional questions.
- Held an online informational public meeting on February 17 including a pre-recorded presentation in English, Spanish, Vietnamese, and Khmer, followed by a translated Q & A session. Provided a Q & A document after the meeting for those unable to attend, also available in multiple languages.
- Including two requested extensions to the deadline, the comment period was open for a total of 75 days.

EMJ/ Jorgensen Forge EE/CA

- Background
- The work
- Public process



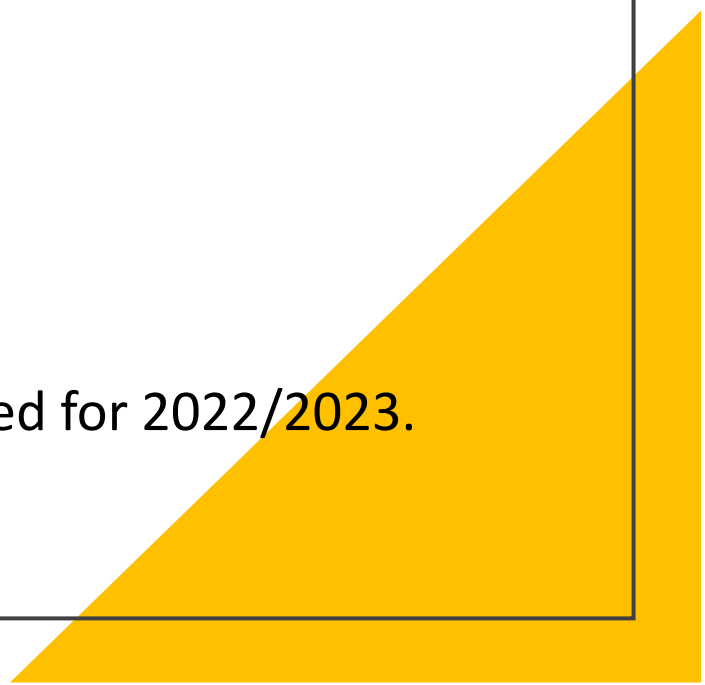


EMJ/ Jorgensen Forge EE/CA: *Background*

- Earle M. Jorgensen Company (EMJ), a prior landowner, is conducting a removal action under EPA oversight.
- Former steel and aluminum forging facility that operated for 70+ years.
- EPA oversees in-water and shoreline cleanup, the state is overseeing upland cleanup.
- In 2014 shoreline and sediments were removed but not completed per the cleanup plan.
- EMJ paid > \$200,000 in penalties and EPA required additional work, including sampling and a supplemental Engineering Evaluation/Cost Analysis (EE/CA).



EMJ/ Jorgensen Forge EE/CA: *The work*

- EMJ has prepared a supplemental EE/CA to evaluate ways to address remaining PCBs contamination.
 - Cleanup options:
 - Dredging/Backfill
 - Protective barrier
 - Long-term monitoring
 - Combination of above
 - Project completion targeted for 2022/2023.
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EMJ/ Jorgensen Forge EE/CA: *Public process*

- EPA is seeking tribal input and public comment on the draft supplemental EE/CA before making the decision on how the remaining metals and PCBs will be addressed.
- A public comment period is currently planned to begin in late June.



East Waterway Proposed Plan

- The site
- Background
- Cleanup approach
- Cleanup components
- Public outreach and public comment

East Waterway Proposed Plan: *The site*



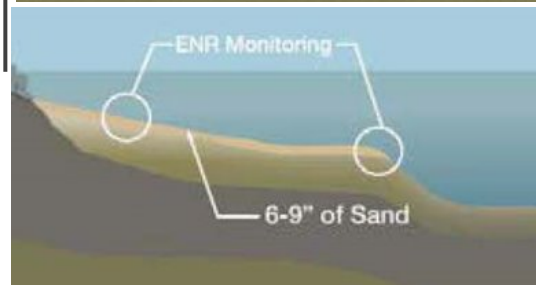
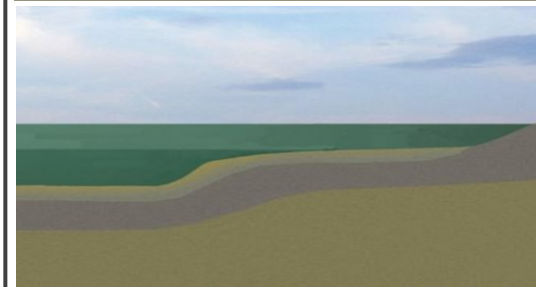
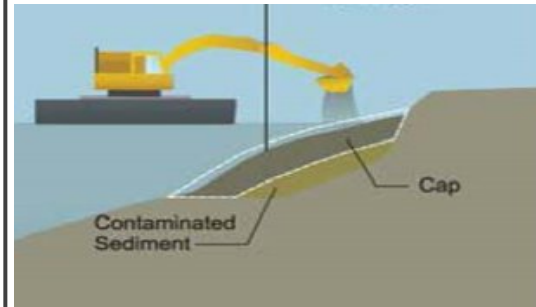
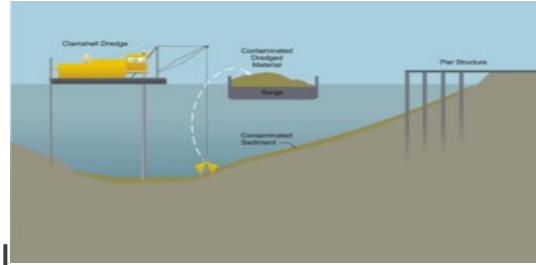
East Waterway Proposed Plan: *Background*

- East Waterway is one of 10 separate areas, called operable units, of the Harbor Island Superfund Site.
- PCBs, arsenic, cPAHs, and dioxins/furans are the four contaminants of concern that pose the greatest risk to people's health. PAHs, tributyltin, and other contaminants pose risks to bottom-dwelling organisms and fish.
- The primary way people may be exposed to contamination is from eating resident seafood caught there. People may also be directly exposed to contaminated sediment while net-fishing or harvesting clams.
- The Muckleshoot Indian Tribe and Suquamish Tribe have usual and accustomed fishing rights in the Waterway. Treaty protected uses within the East Waterway include a commercial salmon fishery, as well as ceremonial and subsistence shellfish harvesting.

East Waterway Proposed Plan: *Cleanup approach*

- The overall strategy for addressing contamination in the East Waterway includes two components:
 1. Cleanup of the existing contamination in the East Waterway; and,
 2. Control sources of contamination from activities directly discharging into the East Waterway.
- Both components will be conducted by the Port of Seattle, City of Seattle, and King County, with EPA oversight.
- EPA is working with the U.S. Coast Guard on an evaluation of cleanup alternatives for the Slip 36 portion of the East Waterway which is owned by the federal government.

East Waterway Proposed Plan: *Cleanup components*



Cleanup components

- *Removal/Dredging*
- *Containment/Capping*
- *Monitored natural recovery*
- *Enhanced natural recovery*

East Waterway Proposed Plan: *Public outreach & public comment*

- **Factsheets** – in four languages: English, Khmer, Spanish, Vietnamese
- **Pre-recorded presentation video** – in four languages: English, Khmer, Spanish, Vietnamese
- **Public meeting** – with interpretation available in Khmer, Spanish, Vietnamese
- **Estimated timeline:**
 - **Proposed plan – Public comment period**
 - **Record of Decision (the final cleanup plan)**